Gulf of Mexico Aquaculture Fishery Management Plan
Frequently Asked Questions
June 2014

What is the current U.S. aquaculture and seafood production?

Domestically, wild capture fisheries landings are around $5 billion annually. This is several times that of U.S. aquaculture production which is around $1.3 billion annually.

How important is aquaculture in the global seafood supply?

Currently, aquaculture supplies half the world's seafood and is expected to supply nearly 2/3 by 2030.

What is the status of the Fishery Management Plan for Regulating Offshore Marine Aquaculture in the Gulf of Mexico (Aquaculture Plan)?

The Aquaculture Plan became effective on September 3, 2009. Draft regulations to implement the plan are currently in review with NOAA. The public will have a chance to comment on these regulations before they would become effective.

When will regulations for the Aquaculture Plan be effective?

The draft regulations are currently undergoing NOAA review. Once review is complete, the draft regulations will publish in the *Federal Register* for a 45-day public comment period. After the comment period ends, NOAA will review all comments on the draft regulations and make any necessary revisions before publishing the final regulations in the *Federal Register*. Once the final regulations publish, there is a mandatory 30-day 'cooling off period' after which NOAA can begin receiving applications for permits. This process may take up to a year or more and could be completed sometime in 2014.

What is offshore aquaculture?

Offshore aquaculture is the rearing of aquatic organisms in controlled environments (e.g., cages or net pens) in federal waters. In the U.S., federal waters begin where state jurisdiction ends and extend out to 200 miles offshore. These areas under federal jurisdiction are also referred to as the U.S. Exclusive Economic Zone.

Are there currently any offshore aquaculture operations in federal waters of the United States?

Currently, there are no commercial finfish or shellfish aquaculture operations in U.S. federal waters. In 2013, there were 20 permit holders for live rock aquaculture in federal waters off the coast of Florida.

There are several research and commercial aquaculture operations that exist in state waters off the coasts of Hawaii, California, Washington, Maine, New Hampshire, Massachusetts, and Rhode Island.

Why did the Gulf Council develop the Aquaculture Plan?

Prior to the Aquaculture Plan, an exempted fishing permit was required to conduct aquaculture in federal waters. Since exempted fishing permits are of limited duration (1 year), they did not present a viable option for commercial aquaculture operations. The Gulf Council's Aquaculture Plan and its corresponding regulations would allow NOAA Fisheries to permit up to 20 operations within a 10-year period and would cap combined annual production for all facilities at 64 million pounds.

Allowing for seafood production via offshore aquaculture could help meet growing consumer demand for seafood, reduce U.S. dependency on seafood imports, create jobs in coastal communities, and help to maintain working waterfronts.

What is the primary purpose of the Gulf Council's Aquaculture Plan?

The purpose of the Aquaculture Plan is to maximize benefits to the Nation by establishing a regional permitting process to manage the development of an environmentally sound and economically sustainable aquaculture

industry in federal waters of the Gulf of Mexico. The plan aims to supplement the supply of wild-caught species with cultured product.

What are the primary objectives of the Gulf Council's Aquaculture Plan?

The objectives are to:

- Provide for the development of an environmentally sound and economically sustainable aquaculture industry in federal waters to increase the U.S. seafood supply (via supplementing wild-caught species with cultured product), consistent with the goals and objectives of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).
- Achieve optimum yield without adversely affecting wild stocks, protected resources, and essential fish habitat.
- Conserve and protect essential fish habitat through proper aquaculture facility siting.
- Obtain necessary data and information for issuing aquaculture permits and monitoring potential impacts of aquaculture operations.
- Minimize user conflicts among aquaculture permit operations, commercial fishermen, and recreational anglers.
- Prevent or mitigate to the extent practicable adverse impacts to wild stocks, protected resources, and essential fish habitat resulting from aquaculture activities.
- Reduce the nation's dependence on imports by supplementing the harvest of domestic fisheries with cultured products to meet growing U.S. consumer demand.
- Promote and facilitate effective enforcement of the aquaculture management program.

Does NOAA have the authority to regulate aquaculture in federal waters?

Yes. Landings or possession of species managed under a fishery management plan for purposes of commercial marine aquaculture production in federal waters constitutes "fishing" as defined in the Magnuson-Stevens Act. Fishing includes activities and operations related to the taking, catching, or harvesting of fish.

Does the Aquaculture Plan include requirements to evaluate and monitor environmental impacts?

Yes. The plan includes monitoring, recordkeeping, and reporting requirements to assist NOAA Fisheries in administering and reviewing permits and evaluating environmental impacts.

Permit applicants would be required to conduct a baseline assessment of the proposed site prior to permit review by NOAA Fisheries. If a permit is authorized, permittees would be required to conduct routine monitoring and inspections of the site based on NOAA Fisheries protocols and procedures developed in coordination with other federal agencies. Permittees also would have to comply with monitoring and reporting requirements specified in applicable permits from other federal agencies (e.g., Environmental Protection Agency's National Pollutant Discharge Elimination System permit).

Does the Aquaculture Plan consider potential environmental issues?

Yes. The Gulf Council prepared a Final Programmatic Environmental Impact Statement, which evaluates the potential environmental impacts of a range of alternatives including potential impacts to water quality, wild stocks, and fishing communities. Potential impacts resulting from offshore aquaculture may include increased nutrient loading, habitat degradation, fish escapement, competition with wild stocks, entanglement of endangered or threatened species and migratory birds, spread of pathogens, user conflicts, economic and social impacts on domestic fisheries, and navigational hazards. The preferred alternatives selected by the Gulf Council were intended to prevent or mitigate to the extent practicable these potential adverse environmental impacts.

Does the Aquaculture Plan include recordkeeping, reporting, and operational requirements to assist law enforcement?

Yes. The plan includes numerous recordkeeping, reporting, and operational requirements to assist law enforcement. Requirements directly assisting with enforcement of aquaculture activities include:

- Prohibiting possession of wild fish or invertebrates at or within the boundaries of an aquaculture facility's restricted access zone, with the exception of authorized broodstock.
- Prohibiting possession of wild fish or invertebrates aboard an aquaculture operation's transport and service vessels, vehicles, and aircraft, except when authorized by NOAA Fisheries to harvest broodstock.

- Providing current valid copies of state and federal permits pertaining to operation of the aquaculture facility, as well as hatchery permits for fingerlings.
- Notifying NOAA Fisheries at least 30 days prior to changes in hatcheries.
- Notifying NOAA Fisheries at least 72 hours prior to harvest and landing.
- Providing applicable bill of lading for any cultured organisms transported for sale.
- Gear stowage requirements for vessels transporting cultured organisms to or from an offshore aquaculture facility.
- Submitting a request to NOAA Fisheries for broodstock collection at least 30 days prior to the proposed date of broodstock harvest.
- Providing NOAA Fisheries with information on hatchery personnel, vessels, and aircraft involved in aquaculture operations.
- Landing of cultured species at non-U.S. ports would be prohibited, unless first landed at a U.S. port.
- Cultured fish must be maintained with heads and fins intact until landing.
- Species cultured at an aquaculture facility in federal waters of the Gulf of Mexico can only be landed ashore between 6 a.m. and 6 p.m., local time.

What are the criteria for determining where an offshore aquaculture operation can be located? Do these criteria protect essential fish habitat and traditional fishing grounds?

Under the Aquaculture Plan, marine aquaculture operations would be prohibited in habitat areas of particular concern, marine reserves, marine protected areas, special management zones, permitted artificial reef areas, and coral reef areas. Additionally, prior to permit review, applicants would have to conduct a baseline assessment at the proposed site in accordance with NOAA Fisheries protocols and procedures. Additional criteria for siting an aquaculture facility (e.g., depth, current speeds, substrate, etc.) would also be evaluated on a case-by-case basis by NOAA Fisheries.

Does the Aquaculture Plan prohibit the use of drugs, pesticides, and biologics?

No. The Gulf Council does not have authority to regulate the use of drugs, pesticides, and biologics. Such authority falls under the purview of the U.S. Food and Drug Administration, U.S. Environmental Protection Agency, and U.S. Department of Agriculture. However, the plan requires that permittees comply with all applicable federal regulations for the use of drugs, pesticides, and biologics.

What types of permits would be required to conduct offshore marine aquaculture?

The Aquaculture Plan provides NOAA Fisheries the authority to issue an Aquaculture Permit that authorizes the deployment and operation of an offshore aquaculture facility in federal waters of the Gulf of Mexico and the sale of allowable aquaculture species cultured from that offshore aquaculture facility. In addition, persons issued an Aquaculture Permit would also be authorized to: (1) harvest (or designate hatchery personnel or other entities to harvest) wild broodstock of an allowable aquaculture species native to the Gulf of Mexico for aquaculture purposes and (2) possess or transport allowable aquaculture species in, to, or from an offshore aquaculture facility in Gulf of Mexico federal waters.

Before a permit is approved by NOAA Fisheries, will there be an opportunity for public comment?

Yes. If NOAA Fisheries' Southeast Regional Administrator determines that an application warrants further consideration, notification of receipt of the application will be published in the *Federal Register* with a brief description of the proposal. The public will then be given up to 45 days to comment.

An application for an Aquaculture Permit would also be considered at a Gulf Council meeting, with an opportunity for the applicant to appear in support of the application. After the public comment period ends, the Southeast Regional Administrator will notify the applicant in writing of the decision to grant or deny the Aquaculture Permit, and, if denied, the reasons for the denial. The Southeast Regional Administrator will also publish a notice in the *Federal Register* upon approval or denial of a permit.

What species are allowed for culture under the Aquaculture Plan?

The plan allows culture of all species native to the Gulf of Mexico that are managed by the Gulf Council, with the exception of shrimp and corals. Examples of allowable species include red drum, cobia, jacks, snappers, and groupers.

Would non-native, genetically modified, or transgenic species be allowed for offshore aquaculture?

No. The Aquaculture Plan prohibits the culture of non-native, genetically modified, and transgenic species from being used for offshore aquaculture in federal waters of the Gulf of Mexico.

Why is Gulf Council not prohibiting aquaculture in national marine sanctuaries?

The Gulf Council considered prohibiting offshore marine aquaculture in national marine sanctuaries, but decided not to so that each marine sanctuary can evaluate whether offshore aquaculture is compatible with each sanctuary's management plan. Regulations implementing the National Marine Sanctuaries Act serve to safeguard resources within sanctuary boundaries and include prohibitions or limitations on some activities, such as discharge and disturbance of the seabed. These regulations also provide the National Marine Sanctuary Program with authority to issue permits to allow certain activities beneficial to sanctuaries that would otherwise be prohibited.

Does the Aquaculture Plan include measures for regulating the use of baitfish in aquaculture feeds?

No. The plan does not include specific regulatory measures for regulating the use of baitfish in aquaculture feed for at least two reasons: (1) as a result of market and supply trends, increased U.S. aquaculture production is not likely to increase harvest pressure on U.S. baitfish populations, and (2) regulation of baitfish is a wild stock management issue and not appropriate for consideration under the plan.

In the U.S., Gulf of Mexico and Atlantic menhaden represent the greatest source of fishmeal production, with Atlantic herrings and Californian pilchards accounting for a lesser amount of U.S. fishmeal and fish oil production. Both species are managed by interstate compacts and stock assessments are conducted by NOAA Fisheries. These stock assessments are used to assess the status of each of these populations and necessary management adjustments are made on the basis of the assessments to protect these wild stocks.

What is the Gulf Council doing to reduce the potential spread of disease from cultured species to wild stocks?

The Gulf Council has selected several preferred alternatives to reduce the risk of pathogens and parasites spreading from cultured organisms to wild stocks.

- Prior to stocking cultured animals in an aquaculture system (e.g., cages and net pens), a health certificate signed by a certified aquatic animal health expert stating the cultured animals are free of reportable pathogens is required.
- Once cultured organisms are stocked in an aquaculture system for grow-out, permittees must report to NOAA Fisheries all findings or suspected findings of pathogens within 24 hours of diagnosis.
- NOAA Fisheries, in coordination with the U.S. Department of Agriculture, may order the removal of all cultured organisms upon a determination by a certified aquatic animal health expert that a suspected pathogen exists and poses a threat to the health of wild aquatic organisms.

What happens if there is a hurricane or other type of natural or man-made catastrophe?

The Aquaculture Plan requires that each aquaculture facility have an emergency disaster plan that includes, but is not limited to, preparing the aquaculture systems, equipment, and cultured organisms for a disaster such as a hurricane, tsunami, harmful algal bloom, or chemical or oil spill. The plan also allows NOAA Fisheries to modify time schedules and methods for recordkeeping and reporting in the event of a natural catastrophe.